

Crack-Isolation and/or Sound- Reduction Membrane



REFERENCE GUIDE RGT0110

- Exceeds ANSI A118.12 performance rating for crack isolation
- Extra Heavy Service Rating (ASTM C627)

PRODUCT DESCRIPTION

A flexible, thin, lightweight, load-bearing, fabric-reinforced, “self-adhered” crack-isolation and sound-reduction sheet membrane over which ceramic tile or stone can be installed immediately with any polymer-modified cement-based mortar. Glue-down wood flooring can also be installed with any urethane adhesive.

USES

General

Use under ceramic tile, natural stone, and solid or engineered wood flooring in residential areas such as homes, apartments and condominiums, and commercial areas such as airports, malls, office buildings, restaurants and galleries.

Crack isolation (for ceramic tile or stone)

- Residential and commercial floors, both interior and exterior (with proper drainage)
- Helps prevent existing or future in-plane floor cracks (with movement up to 3/8" [10 mm] wide) from transmitting through grout, ceramic tile or natural stone

Sound reduction (for tile, stone and wood flooring)

- For interior residential and commercial floors
- Ideal for multi-family or multi-story buildings where noise transmission is a common problem
- Reduces transmission of impact sound (footsteps, dropped objects, etc.) and airborne sound (voice, TV, etc.) through floors covered with tile, stone and wood floor coverings

SUBSTRATE REQUIREMENTS

Must be in accordance with ANSI A108.5 current standards and recommendations.

All supporting surfaces must be structurally sound. The surface area that will receive membrane must be dry, clean and free of dust, oil, grease, tar, paint, wax, curing agents, sealers, release agents, existing adhesives and any other substance that can weaken the adhesive's bond to the substrate. If the surface contains these substances, they must be mechanically removed. Do not use chemical means.

Note: To remove any bond-inhibiting materials, concrete substrates should be mechanically cleaned and prepared by diamond-cup grinding or other engineer-approved methods to obtain the ICRI (International Concrete Repair Institute) concrete surface Profile #2. When concrete requires more mechanical preparation, the profile will typically increase. In such a case, the surface should be made smooth by applying an appropriate patch or skimcoating material. For large areas, consider using an appropriate self-leveling underlayment (see respective Technical Data Sheets [TDSs] for more information.)

SUITABLE SUBSTRATES (when primed with an appropriate, compatible “peel-and-stick” membrane primer)

- Fully cured concrete (at least 28 days old)
- Cement mortar beds and leveling coats
- Cement backer units
- Properly prepared cement terrazzo floors, well-bonded ceramic tile and natural stone
- Well-bonded vinyl composition tile
- Exterior-grade plywood for interior residential floors and countertops in dry areas only
- Laminate countertops

Consult Technical Services Department for installation recommendations regarding substrates and conditions not listed.

LIMITATIONS

- Do not use over cracks or control joints subject to out of-plane movement or subject to in-plane movement greater than 3/8" (10 mm).
- Do not use membrane or membrane primer with solvent-based materials; premixed adhesives; on vertical surfaces; under glass tile; as a waterproofing membrane or wear surface; or for submerged applications or floors subject to standing water.
- Do not cover expansion joints. Refer to most current TCA Handbook, Detail EJ-171.
- Do not use where excessive substrate moisture and/or where negative hydrostatic pressure exists. The maximum amount of acceptable moisture in a concrete substrate before installing this membrane is 3 lbs. per 1,000 sq. ft. (1.36 kg per 92.9 m²) per 24 hours as determined by a calcium chloride test kit. When moisture vapor emissions are in excess of 3 lbs. per 1,000 sq. ft. (1.36 kg per 92.9 m²) per 24 hours, call Technical Services Department for recommendations.
- Do not use over substrates containing asbestos, plank wood flooring, presswood, particleboard, chipboard, oriented strand board, pressure- or oil-treated plywood, Luaun, Masonite, self-stick tile, laminate flooring, metal or fiberglass, poured epoxy floors or other unstable materials.
- Do not use in areas of prolonged water immersion (swimming pools, spas, steam rooms, gang showers, hot tubs, fountains).
- Do not use as a wear surface.
- When using this membrane and an appropriate, compatible membrane primer over gypsum-based floor-patching or leveling compounds, an acrylic primer must be applied first. Call Technical Services for additional information.
- Do not use premixed products to set tile over this membrane.
- Do not use self-leveling products over this membrane.
- Do not install moisture-sensitive or manmade tile such as agglomerates with water-based setting materials.
- Do not cover any substrate expansion joints with membrane, mortar or tiles. Provide for expansion joints where specified. Refer to the most current TCA handbook for ceramic tile installation, Detail EJ171- 07.

Note: On occasion, dimensionally weak natural stone tile that normally would not be categorized as moisture-sensitive (such as travertine, limestone, marble and agglomerates) can exhibit doming, cupping or curling when wet-set or medium-bed mortar is used over impervious sheet membranes such as this membrane. For this reason, areas requiring more than 3/8" (10 mm) buildup require a self-leveling underlayment or cured mud bed before this membrane is installed. For more information, contact Technical Services.

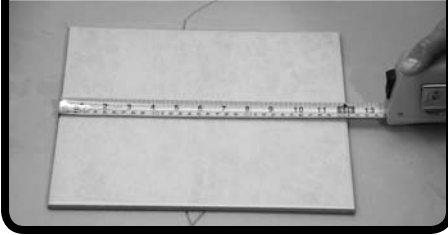
APPLICATION

- Apply when substrate and ambient temperatures are between 40°F and 95°F (4°C and 35°C).
- Install membrane only in conjunction with an appropriate, undiluted peel-and-stick membrane primer.

1. Individual crack isolation before installing tile

- 1.1 Membrane may be applied directly to the substrate area that has existing in-plane cracks (with movement up to 3/8" [10 mm] wide).

1.2 Measure and determine the longest width of the largest individual tile being set.



1.3 Cut membrane to size so length and width of membrane will cover entire length and width of crack, plus 3 times the width of largest tile being used.



1.4 Center the cut membrane over crack's width and length. Mark floor where membrane is to start.



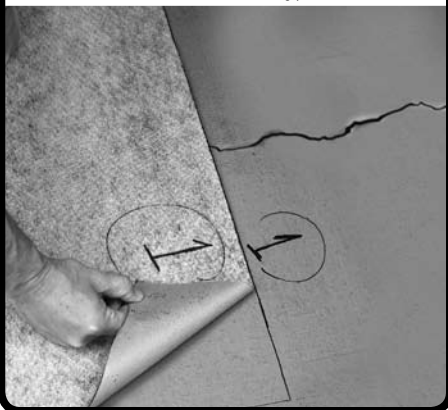
1.5 Set aside precut sections (or entire rolls) of membrane. Continue with installation instructions at Step 2.3.

2. Full-floor crack isolation (or sound reduction)

2.1 To effectively isolate and protect an entire tile installation from existing or future substrate cracks, and to achieve effective sound reduction, membrane must be installed over 100% of the substrate that will be covered with ceramic tile or stone. For effective sound reduction, an approved acoustical sealant should fill gaps between end of tile or wood and walls, columns, etc.

2.2 Unroll membrane and cut to size for the substrate to be tiled. For easier handling and installation, each roll may be cut into shorter lengths (such as 10 feet [3,05 m]) before installation. Ensure all edges or ends of each roll abut edges or ends of other rolls. To ensure a flat surface and proper sound reduction, do not overlap edges or ends from one roll onto another.

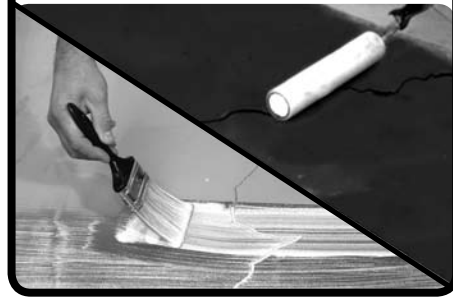
2.3 Number each sheet and mark its starting point on the floor.



2.4 Set aside precut sections of membrane.

3. Primer application

3.1 Using a roller or brush, prime the clean, properly prepared floor with the appropriate primer (undiluted).



3.2 Allow primer to dry until tacky (about 10 to 15 minutes).

4. Membrane installation

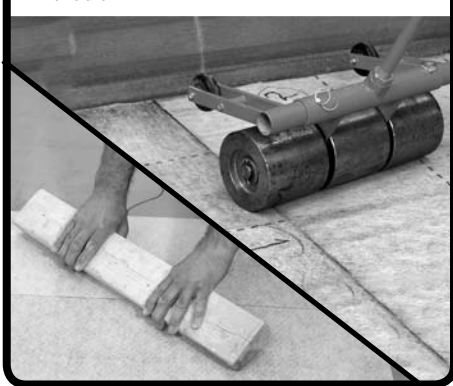
4.1 Peel back the first 1" (2,5 cm) of release film from the end of the precut sections.



4.2 Apply this leading edge at the previously marked starting point to the primed and tacky floor.

4.3 Continue removing short amounts of release film and apply membrane to the sticky floor. Continue until the floor is covered with membrane.

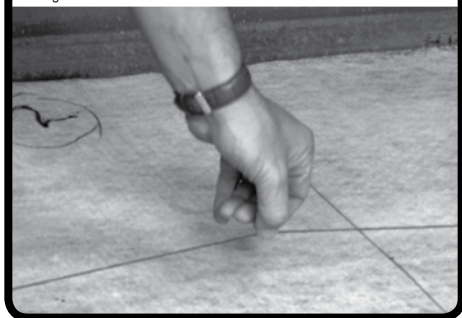
4.4 To ensure a positive bond between membrane and tacky floor, roll a 75-lb. to 100-lb. (34,0-kg to 45,4-kg) roller over the installed membrane.



4.5 Using a razor knife, remove any wrinkles or objects trapped beneath the membrane, and then repair.



4.6 Chalk lines or other layout methods are easily applied over the light-colored membrane surface.



5. Cleanup

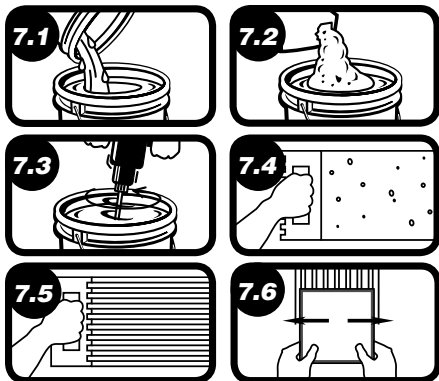
Remove excess primer with mineral spirits.

6. Mixing and applying tile mortar

- 6.1 Mix an appropriate latex polymer-modified mortar meeting both ANSI A118.4 and ANSI A118.11 industry standards to install ceramic tile or natural stone. Note: When installing tile larger than 18" x 18" (46 x 46 cm), longer mortar-cure times may be required before tile can be grouted or walked on. For shorter turnaround times when installing larger tile, use a rapid-set mortar.
- 6.2 To install moisture-sensitive tile or stone, use an appropriate urethane adhesive.
- 6.3 With flat side of trowel, key mortar immediately into the fabric surface of the installed membrane.
- 6.4 With notched side of trowel, comb the mortar in a single direction. See mortar bag for typical notched trowels used for setting tile.

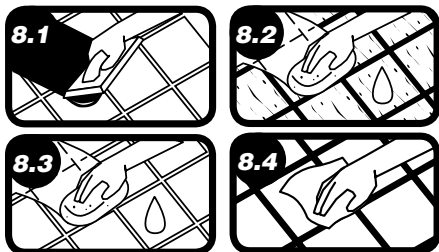
7. Ceramic tile or stone installation

Set tile or stone. See the respective TDS and applicable protection times for selected mortar.



8. Grouting

Select an appropriate Portland-cement grout meeting ANSI A118.6 or ANSI A118.7 industry standards, or an epoxy grout meeting ANSI A118.3 industry standards. For additional information, instructions and recommended protection, see the respective TDS for the grout selected.



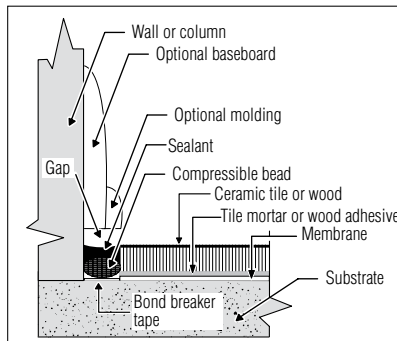
9. Glue-down wood-flooring installation (for sound reduction)

- 9.1 Select an appropriate urethane adhesive to install solid or engineered wood flooring.
- 9.2 Apply urethane adhesive. Follow wood-flooring manufacturer's instructions and typical trowel size.

Note: Wood by nature will normally swell and shrink with variances in ambient relative humidity. Moreover, different species and/or different wood construction of wood floors (e.g., engineered floors) typically undergo greater or lesser dimensional changes. Because of this, some expansion and contraction of planks used for wood flooring can be expected and therefore will not be considered a defective condition resulting from using our membrane.

10. Nail-down wood-flooring installation (for sound reduction)

- 10.1 Follow Steps 2.2 to 4.6 above.
- 10.2 Follow wood-flooring manufacturer's instructions.



For additional information, instructions and recommended protection, see the respective TDS for the mortar or adhesive selected.

PROTECTION

- Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
- Do not store membrane or primer in direct sunlight.
- Do not allow primer to freeze.
- Protect membrane from spills, contamination and damage before and during tilework to ensure a positive bond with the mortar.
- Always provide proper protection of finished floors when heavy equipment (such as fork lifts or scissor lifts) is to be used over installations with sheet membrane underlayments during construction.

PRODUCT PERFORMANCE PROPERTIES					
		Sound-Reduction Ratings Over 6" Concrete Slab			
		Solid Porcelain Tile		Engineered Oak Flooring	
ASTM Test Methods	Type of Sound Transmission Measurement	Suspended Ceiling	No Suspended Ceiling	Suspended Ceiling	No Suspended Ceiling
E492-04 (IIC)	Impact	64	47	71	51
E2179-03 (Delta IIC)	Impact	—	16	—	—
E90-04 (STC)	Airborne	66	52	66	51

ATSM C627 Service Rating (Robinson)	
Actual Rating	Extra Heavy Rating
Grout	Sanded, unsanded or epoxy
12" x 12" unglazed solid body porcelain (with 1/4" joints)	Yes
Mortar	Polymer-modified
Membrane	Yes
Primer	Appropriate, compatible, undiluted peel-and-stick membrane primer
6" concrete slab	Yes



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